Amendments to the Specification:

Please replace paragraph **[0019]** beginning at page 5, line 11, with the following:

--**[0019]** Figure 4 indicates that the *Rab38* mutation causes the *chocolate (cht)* mouse phenotype. Panel A provides a comparison of *Rab38* sequence between wildtype ~~C57Bl6/J~~ C57Bl/6J +/+ DNA (SEQ ID NO: 1) and mutant ~~C57Bl/6J~~ C57Bl/6J *Rab38*^{cht}/+DNA (SEQ ID NO:2), revealing a G146T nucleotide change (arrow) in the *cht* allele. This nucleotide change was never seen in eight additional inbred strains analyzed. Panel B illustrates that the G146T mutation creates a *Sex*A1 restriction enzyme site in C57B1/6J *Rab38*^{cht}/*Rab38*^{cht} DNA and ablates a *Bsa*JI restriction site present in wildtype *Rab38* sequence. A 216 by region surrounding the G146T nucleotide mutation was amplified from both C57B1/6J +/+ DNA and C57Bl6/J *Rab38*^{cht}/*Rab38*^{cht} DNA. *Sex*A1 digests the PCR fragment of C57B1/6J *Rab38*^{cht}/*Rab38*^{cht} (lane 1), but not C57B1/6J +/+(lane 2); *Bsa*JI digests the PCR fragment of C57Bl6/J +/+ (lane 4), but not C57B1/6J *Rab38*^{cht}/*Rab38*^{cht} (lane 3).--

Please replace paragraph **[0034]** beginning at page 11, line 9, with the following:

--**[0034]** The coat color of *Rab38*^{cht}/*Rab3*^{cht} mice closely resembles that of the *brown* (*Tyrp1*^{b}/*Tyrp1*^{b}), OCAIII mouse model. The *brown* mouse model contains a defect in a melanin biosynthesis gene *Tyrp1*, resulting in a coat color change of the ~~C57BL/6J~~ C57Bl/6J mouse from black to brown. TYRP is a melanosomal membrane glycoprotein, which functions both as a DHICA oxidase enzyme and to provide structural stability to TYR in the melanogenic enzyme complex. TRYPI is believed to transit from the trans-golgi network (TGN) to stage II melanosomes via clatherin coated vesicles, possibly by first passing through an uncharacterized sorting compartment (Marks and Seabra, Nat Rev Mol Cell Biol 2:738-748 [2001]). Based upon the similar coat phenotype and predicted Rab protein function, RAB38 is contemplated to be specifically involved in trafficking of melanosomal proteins like TYRP1, to the melanosome. Consistent with this, GFP tagged RAB38 co localizes with melanosomes in pigmented melanocyte lines in culture and TYRP 1 is inefficiently targeted to pigmented end stage

melanosomes in *Rab38*^{cht}/*Rab38*^{cht} melanocytes. The brown coat color observed in *Rab38*^{cht}/*Rab38*^{cht} mice is contemplated to be the result of a reduced amount of melanosomal TYRP1. Thus, RAB38 is implicated in the vesicle trafficking required for proper targeting of proteins, such as TYRPl, to melanosomes.--

Please cancel the present "SEQUENCE LISTING", pages 1-8, submitted July 14, 2004 as the Chapter II, Article 34 Amendment to parent application PCT/US03/01622 on August 12, 2003, and insert therefor the accompanying paper copy of the Substitute Sequence Listing, page numbers 1 to 8, at the end of the application.